

632-
MOD007152903

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Mel Carnahan, Governor • David A. Shorr, Director

DIVISION OF ENVIRONMENTAL QUALITY

Southwest Regional Office
318 Park Central East, Suite 500 Springfield, MO 65806-2218
(417)895-6950
FAX (417)895-6954

Greene County/HZW
Litton Industries

February 15, 1995

CERTIFIED MAIL NUMBER
Z 281 819 210
RETURN RECEIPT REQUESTED

LOW # 95-SW.005

Mr. Bob Schutz
Plant President
Litton Industries
Advanced Circuitry Division
4811 W. Kearney
P.O. Box 2847
Springfield, MO 65801-0847

Dear Mr. Schutz:

On January 24, 1995, a hazardous waste compliance inspection was conducted at the Litton-Advanced Circuitry Division facility located at 4811 W. Kearney in Springfield, Missouri. The purpose of the inspection was to determine the facilities compliance status with the Missouri Hazardous Waste Management Law and Regulations under authority of Sections 260.375 and 260.377 RSMo.

Enclosed is a copy of the hazardous waste compliance report and Notice of Violation (NOV) number 2966. The NOV is issued for violations of the Missouri Hazardous Waste Management Law and Regulations observed during the January 24, 1995 inspection.

This letter will require Litton-ACD to provide documentation demonstrating a return to compliance in accordance with the following schedule:



R00337395
RCRA RECORDS CENTER



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PROGRAM

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MOD007152903

DOCUMENT # 132

Mr. Bob Schutz, President
Litton-ACD
February 15, 1995

Within fifteen (15) days of receipt of this report,

1. Submit documentation demonstrating that the drums of lead contaminated filters in the hazardous waste storage area have been shipped for disposal or a schedule detailing the anticipated disposal date.
2. Documentation demonstrating that overfill prevention devices have been installed on the hazardous waste storage tanks or certification that such devices will be installed with a timeframe for completion.
3. Documentation demonstrating that the secondary containment system for the hazardous waste storage tanks has been equipped with a leak detection system capable of detecting releases within 24 hours, or certification that such a system will be installed on the secondary containment system with a timeframe for completion.
4. Certification that daily inspections of the aboveground portions of the hazardous waste storage tanks, overfill/spill control equipment and secondary containment will be resumed and properly documented.

By March 17, 1995, submit the following documentation,

1. Certification that all liquids will be removed from the secondary containment system within 24 hours or as soon as possible.
2. Certification that the Missouri manifest document number will be provided on all manifests.
3. Certification that either the weight in pounds or the specific gravity of the hazardous waste sludges will be provided on all manifests.
4. Certification that out of state manifests will include all required Missouri information.
5. A photocopy of the updated personnel training plan containing a description of the introductory and continuing training that will be given to each employee.

Mr. Bob Schutz, President
Litton-ACD
February 15, 1995
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The aforementioned documentation must be submitted to the attention of Mark Rader at this office with a copy to Mr. Tom Judge, Chief, Hazardous Waste Enforcement Unit, Hazardous Waste Management Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102.

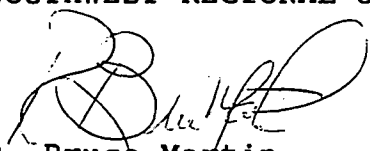
The facility must also review in-house procedures to determine if the following recommendations may be implemented; review the handling methods of the waste mercury vapor bulbs to ensure proper accumulation, storage and disposal, review labeling requirements for the hazardous waste storage tanks to ensure ease of identification, update and resubmit contingency plan information as necessary and develop a formal hazardous waste storage area inspection procedure.

You should note that the Missouri Hazardous Waste Management Law Section 260.424 RSMo provides for penalties not to exceed ten thousand dollars (\$10,000) per day for each day, or part thereof, for which the violation occurred and continues to occur. Litton must take immediate steps to address and eliminate the violations noted in this inspection report.

Please direct any questions or comments concerning this letter to Mark Rader of my staff.

Sincerely,

SOUTHWEST REGIONAL OFFICE



R. Bruce Martin
Regional Director

RBM:MR

enc.

c: Mr. Tom Judge, HWEU, HWMP

MISSOURI HAZARDOUS WASTE MANAGEMENT LAW
COMPLIANCE EVALUATION INSPECTION REPORT
FEBRUARY 14, 1995

FACILITY:

Litton - Advanced Circuitry Div.
4811 W. Kearney
Springfield, MO 65803
(417) 862-0751

EPA ID: MOD007152903
MO Generator ID: 01317

PARTICIPANTS:

Department of Natural Resources

Mark Rader
Environmental Specialist
Southwest Regional Office

Charles L. Kroeger
Environmental Specialist
Southwest Regional Office

US EPA Region VII

Paul Okerberg
Special Agent

Daniel J. Pflaster
Special Agent

Litton - ACD

Neil Schaffer
Environmental Engineer

Terry Bean
Working Group Lead

INTRODUCTION:

A hazardous waste compliance inspection was conducted at the Litton - Advanced Circuitry Division facility on January 24, 1995. The inspection was conducted under the authority of Sections 260.375(9) and 260.377 RSMo for the purpose of determining the compliance status of the facility relating to hazardous waste handling and disposal.

During the opening conference of the inspection, the inspectors provided an overview of the inspection content and explained Litton's right to request that portions of the inspection be held confidential.

Litton-ACD Hazardous Waste Compliance Inspection Report
February 14, 1995
page 2

Mr. Schaffer provided information regarding the facility's production processes and waste streams processed through the wastewater pretreatment system and/or disposed as hazardous wastes. Following the opening conference Messrs. Schaffer and Bean led the inspectors on a tour of the facility to examine production lines relevant to the generation of hazardous wastes, accumulation and storage areas. Following the tour of the facility, the necessary paperwork was provided for review.

During the closing conference, the inspectors detailed the findings of the inspection and informed Mr. Schaffer that several items of concern would need to be discussed with the Hazardous Waste Management Program prior to final determination. Following that discussion, a formal inspection report would be issued including all violations noted during the inspection.

FACILITY DESCRIPTION:

Litton manufactures printed circuit boards and is a large quantity generator of hazardous wastes. The Springfield facility has approximately 660 employees working three eight hour shifts seven days per week.

The facility receives copper coated laminant as a raw product, sheers the material to size, computer drills the boards, then performs dry film imaging. The boards go through an electroless copper plating procedure to set a specific thickness of copper prior to transfer to an electrolytic copper plating operation for final application. These plating operations involve a series of tanks containing cleaning agents, rinses and oxidizers. The wastewaters from the operations are directly plumbed to one of two pretreatment systems.

After the boards are copper plated, they are solder plated, the film is removed and the excess copper is etched in either an ammonium etchant or a cupric chloride etchant. The waste etchants are plumbed directly to hazardous waste storage tanks.

For those boards requiring gold tipping, the process is performed following the etching. The boards are then solder masked, routed, inspected and prepared for shipment. Wastewaters are directly plumbed to one of two pretreatment systems.

Multi-layered boards go through similar processing but are stacked and laminated prior to routing and fabrication.

The following hazardous wastes are generated during production processes:

Ammonium etchant (D002) is directly pumped to a 6,000 gallon storage tank in the bulk storage area. This waste is generated at a rate of about 4,000 gallons per month and is shipped for regeneration and recovery. 51,800 gallons of the waste ammonium etchant were shipped during the calendar year of 1994.

Cupric chloride etchant (D002) is directly pumped into one of two 4,500 gallon storage tanks located in the bulk tank storage area. This waste is generated as the process tank is continually regenerated. The generation rate of the waste cupric chloride is approximately 5,000 gallons every two months and the waste is shipped for regeneration and recovery. 33,136 gallons of waste cupric chloride etchant were shipped during the calendar year of 1994. The facility representatives indicated that the cupric chloride etchant may be discontinued during the middle of 1995 and replaced with the ammonium etchant solution.

Pretreatment sludges (F006/D008) are generated in the treatment of wastewaters prior to discharge to the Springfield municipal sewerage system. Wastewaters from the board preparation processes are directly plumbed into one of two treatment processes.

The batch treatment process is used to treat the more highly contaminated waste waters (acids and organics). This system consists of six tanks in which treatment chemicals (sodium sulfide and a proprietary compound) are added. After mixing, the sludge is allowed to settle and the water is filtered through one micron filter bags prior to discharge. The sludges are piped to a sludge thickening tank, polymers added, filter pressed, dried, collected in a metal hopper and bagged in cubic yard bags. Due to the possibility of sparking, the metal hopper receives the sludges which are transferred to the bags once a cubic yard of waste is generated. This system was reworked during the summer of 1994 with a change in treatment chemicals allowing for the generation of less sludge. A cubic yard bag of sludge is generated approximately every 12 hours.

The flow through system treats the less highly contaminated wastes. Wastes are plumbed into an initial 10,000 gallon collection tank then to a 17,000 gallon tank for pH adjustment to 9.8. Under gravity flow, the waste is piped to a Lamallae clarifier where solids initially settle, sludges are piped to settling tanks, allowed to thicken prior to going through the filter press and drier. A cubic yard bag of sludge is generated approximately once per day.

581,450 pounds of sludges were generated during the first three quarters of 1994.

Used oils (D098) are generated at the facility in maintenance of equipment such as hydraulic presses, compressors, drills, etc... The oil is generated at a rate of about 1,000 pounds per month and disposed through Southwest Oil Company of Pittsburg, Kansas.

Scrap printed circuit boards, once treated as hazardous, are now treated as a nonhazardous waste and shipped to the Sand Hills Refinery in Pecos, Texas for reclamation.

Waste mercury vapor lights (D009) have been found to fail the TCLP and are disposed as a hazardous waste. The facility generates approximately 100 pounds per month with 170 pounds shipped off site in 1994. The waste lights are accumulated and stored in the hazardous waste storage area.

Other wastes are generated on occasion as warranted. Lead contaminated soils and wood are generated from construction or remodeling projects in the facility. The facility representatives indicated that on all remodeling projects, removed construction materials and soils were routinely tested for contamination. Additional waste streams may originate from off spec products and various other sources. These off spec products may be introduced into the wastewater pretreatment process.

Waste lead contaminated filters from the electrolytic copper plating bath are accumulated and considered a hazardous waste. This waste stream, originally generated in May of 1994, has yet to be shipped off-site as the facility has been awaiting final approval from the disposal facility. Shipment of the waste was requested by Litton in June 1994, a contract was approved in December 1994 with the facility presently waiting for a transporter to schedule a shipment date.

UNSATISFACTORY FEATURES AND RECOMMENDATIONS:

1. Storage over 90 days: 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a). The facility has stored the lead contaminated filters since May 12, 1994, far in excess of the 90 day storage limit for large quantity generators. As indicated by Mr. Schaffer, the delay was due to gaining approval for and scheduling a shipment of this new waste stream.
2. Failure to have overfill prevention controls in place and operating: 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(b)(2). The facility operates three above ground tanks for storage of hazardous wastes. The facility personnel indicated that there were no automatic feed cutoffs, alarms or other overfill prevention devices in operation. The facility monitors waste levels daily with a visual inspection and regulates quantities of waste introduced into the tanks through locking valves.
3. Failure for the tank storage containment system to be provided with a leak detection system capable of detecting a release within 24 hours: 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(3). The secondary containment system must be provided with a leak detection system designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time. The facility's visual inspection of the primary containment system does not provide necessary assurance of leak detection for the secondary containment structure.
4. Failure to provide a containment system which is sloped or designed to drain and remove liquids: 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B.(III)(b). Although the containment system is enclosed and accumulated liquids may be removed with a pump, the floor is not sloped nor is a sump provided to assist in this removal.

6. Failure to conduct daily inspections of overfill/spill control equipment, aboveground portions of the tank system, secondary containment and data gathered from monitoring systems: 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.195(a). Facility personnel indicated that the last documented inspection of the tank system, other than daily visual capacity monitoring, was conducted on October 1, 1993. A daily inspection program must be developed and implemented covering the tanks, secondary containment structures, overfill/spill control equipment, leak detection/monitoring systems and any or all ancillary systems (all piping connected to the hazardous waste tanks, both incoming and outgoing).
7. Failure to maintain an inspection log for the tank systems: 10 CSR 25-5.262(1) incorporating 40 CFR 265.262(a)(1) referencing 40 CFR 265.195(c). The facility's last documented inspection was on October 1, 1993.
8. Failure to include the Missouri manifest document number on the manifest: 10 CSR 25-5.262(2)(B)2.A. Although the facility provides the Missouri manifest document number on all Missouri manifests, the number is not provided on manifests from other states. All Missouri required information must be provided on out of state manifests. This number may be provided in the additional information section.
9. Failure to designate either the weight in pounds or the specific gravity of the waste on the manifest: 10 CSR 25-5.262(2)(B)2.I. Should the waste be listed or measured in gallons, liters or cubic yards on the manifest, the specific gravity must be included. Since Litton ships the hazardous waste sludge as cubic yards, the facility should either use generator knowledge to determine an approximate shipping weight in pounds or calculate the approximate specific gravity. Adjusted figures, received from the disposal facility, should be utilized in completion of the quarterly summary reports to accurately portray the quantity of waste shipped off-site.
10. Failure to ensure that out of state manifests include all required Missouri information: 10 CSR 25-5.262(2)(B)4.A. The facility must ensure that all required Missouri information (Missouri manifest document number) is provided on manifests from other states.


11. Failure to provide a written description of introductory and continuing training that will be given to each position: 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)(3). The facility did have a brief outline of training, but needs to elaborate and expand on the description.

ADDITIONAL COMMENTS AND RECOMMENDATIONS:

1. The facility accumulates and stores the waste mercury vapor lights in the hazardous waste storage area. Most of the bulbs were stored in cardboard boxes, but several bulbs were noted to be stored in a loose manner. Once bulbs are designated as a waste material and removed to the storage area, they must be properly prepared for storage and subject to all storage and labeling requirements.
2. The labeling for the hazardous waste storage tanks is felt to be at a minimum. Two of the tank labels were not visible from the viewing location during the inspection and at least one label was indicated to be placed upon a wall as the label would not stick to the tank. The facility should apply some type of labeling or signage to the tanks which would be visible from all viewing locations.
3. It was noted that the latest notifications to emergency agencies included in the contingency plan were dated during 1989. Due to the changes in the facility, it would be recommended to update and resubmit copies of the contingency plan to the appropriate emergency agencies.
4. Although the facility personnel are in the hazardous waste storage area on a daily basis, there is not a formal inspection procedure for this area. A formal inspection procedure should be developed to document the weekly inspections required by 40 CFR 265.174.
5. During the inspection, an accumulation of hydrochloric acid was noted on the floor of the secondary containment system. This acid was generated from a leaking pump for a product tank. The pump was repaired and the acid ran through the pretreatment system for disposal. The facility must ensure that all liquids within the containment system are removed within 24 hours or as soon as possible.


Litton-ACD Hazardous Waste Compliance Inspection Report
February 14, 1995
page 8

Submitted By:



Mark Rader
Environmental Specialist

Approved By:



Charles L. Kroeger
Environmental Specialist



MISSOURI DEPARTMENT OF NATURAL RESOURCES

NOTICE OF VIOLATION PURSUANT TO REQUIREMENTS OF THE MISSOURI
HAZARDOUS WASTE MANAGEMENT LAW, RULES AND REGULATIONSrecorded
2/17/95

2966

FACILITY NAME <u>LITTON - ADVANCED CIRCUITRY DIVISION</u>			
ADDRESS <u>54811 W. KEARNEY</u>		CITY <u>SPRINGFIELD</u>	STATE <u>MO</u>
MISSOURI ID NUMBER <u>01317</u>		DATE OF INSPECTION <u>JANUARY 24, 1995</u>	
ZIP CODE <u>65803</u>			

During an inspection and/or a review of information or documentation completed this date to determine compliance with the requirements of the Missouri Hazardous Waste Management Law, Section 260.350 - 260.550 RSMo, and/or the Rules and Regulations 10 CSR 25 the following violations were identified. The 40/49 CFR regulations cited below have been adopted by reference in the Missouri Hazardous Waste Regulations.

CITATION	DESCRIPTION OF VIOLATION
10 CSR 25-5.26(1) incorporating 40 CFR 262.34(a)	STORAGE OVER 90 days
10 CSR 25-5.26(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.141(b)(2)	Failure to have overflow prevention controls in place on hazardous waste storage tanks
10 CSR 25-5.26(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.143(b)(3)	Failure to provide secondary containment with a leak detection system
10 CSR 25-5.26(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.115(a)	Failure to conduct daily inspections of overflow/spill control equipment, aboveground portions of tank system, secondary containment

This information is provided to call your attention to those areas of noncompliance at the earliest possible time. This notice does not constitute a compliance order issued pursuant to Section 260.410, RSMo and may not be a complete listing of all violations which may be identified as a result of this inspection.

The owner/operator is hereby requested to submit in writing within 15 days of receipt of this notice a description of all corrective actions taken and/or a schedule for completion of necessary corrective actions to be taken to: Chief, Enforcement Section, Waste Management Program, Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102 with a copy to the Administrator, Southwest Regional Office.

The corrective actions taken within 15 days of this notice will be considered in determining whether enforcement action, including the assessment of civil penalties, should be initiated.

If you have any questions on this notice or wish to discuss your response, you may call MARK RADER at 417-895-6750 or Charles Krueger at 417-895-6750.

Signature of Preparer Mark Rader Date 2-1-95

The undersigned person hereby acknowledges that he/she received a copy of this Notice and has read same.

SIGNATURE <u>SENT CERTIFIED MAIL</u>	PRINTED NAME
TITLE	DATE



MISSOURI DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE PROGRAM
LARGE QUANTITY GENERATOR
INSPECTION RECORD AND CHECKLIST

L
LOG-INSP.

FOR FACILITIES THAT GENERATE/ACCUMULATE > 1000 Kg (2,200 lbs. or approximately, 5 drums)

NAME LITTON ADVANCED CIRCUITRY DIV		DATE JANUARY 24 1995	EPA I.D. NUMBER MO0007152903
ADDRESS 4811 W. Kearney		RR NO. N/A	MO I.D. NUMBER 01317
CITY SPRINGFIELD	NUMBER OF EMPLOYEES 660+	YEARS AT SITE	TELEPHONE NUMBER (417) 862-0751

FACILITY REPRESENTATIVE(S), TITLE(S)

Neil B. Schaffer ENV. Engineer

DESCRIPTION OF THE FACILITY'S OPERATIONS AND PLANT.

Manufacture printed circuit boards
skewing boards drilling, dry film imaging
electroless copper plating electrolytic copper plating
solder plating, etch excess copper
gold plating - solder mask Route inspect ship

WASTE STREAMS

	DESCRIBE EACH WASTE STREAM GENERATED INCLUDING THE PRODUCTION PROCESS	GENERATION RATE	EPA ID NUMBER	DISPOSITION
1.	Ammonium etchant	4,000g/month	D002	PhilbwTee
2.	Cupric Chloride Etchant	500g/3 months	D002	PhilbwTee
3.	Pretreatment Sludges		F006-D008	Cyprus M. Inc
4.	Used oil	1,000 pds/month	D058	Swest
5.	Mercury Vapor lights plus other occasional streams	100 lbs/month	D009	Sup Solvent Heritage

CHECK ALL THAT APPLY (Specify if possible)

- | | | |
|---------------------------------------|---|---|
| <input type="checkbox"/> NPDES Permit | <input type="checkbox"/> Lead/Acid Batteries | <input type="checkbox"/> POTW |
| <input type="checkbox"/> Septic Tank | <input type="checkbox"/> H.W. Burner/Blender/Marketer | <input type="checkbox"/> Solid Waste Landfill |
| <input type="checkbox"/> Air Permit | <input type="checkbox"/> Precious Metal Reclamation | <input type="checkbox"/> Waste Water Pretreatment |

A. GENERAL

1. <input checked="" type="checkbox"/> Registered as a HW Generator - Section 260.380.1 (1) RSMo and 10 CSR 25-5.262 (2)(A)	GGR	COMMENTS
2. <input checked="" type="checkbox"/> Facility determines if waste is hazardous - 10 CSR 25-5.262(1) incorporating 40 CFR 262.11	GGR	
3. <input checked="" type="checkbox"/> Utilizes a licensed hazardous waste transporter - Section 260.380.1 (5) RSMo	GGR	
4. <input checked="" type="checkbox"/> Utilizes authorized HW TSD or RR facility - Section 260.380.1(7) RSMo	GGR	
5. <input checked="" type="checkbox"/> Facility does not operate as a TSD - Section 260.390(1) RSMo	GGR	

PART 1: WALK-THROUGH INSPECTION

B. PRETRANSPORT, CONTAINERIZATION & STORAGE

1. <input checked="" type="checkbox"/> Storage does not exceed 90 days or 180/270 days if facility generates < 1000 Kg/month - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)	GPT	keddums	COMMENTS 29 cubic yard bags filters from solder bath- Rinsed drained no free liquids Fertilizer Rollins Env generate 1X per month change out filters bring back to storage Metals from 1st line 24 → transdate waiting to schedule + approve shipment back to 5-12-94 bag not dated added while inspection in storage area daily due to addition of waste Recommend formal inspection procedure to document!
2. <input checked="" type="checkbox"/> Containers in good condition - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.171	GPT		
3. <input checked="" type="checkbox"/> Waste compatible with container - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.172	GPT		
4. <input checked="" type="checkbox"/> Containers closed in storage - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.173(a)	GPT		
5. <input checked="" type="checkbox"/> Containers storing incompatible waste separated or protected from each other by a dike, berm or wall - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.177(c)	GPT		
6. <input checked="" type="checkbox"/> Container storage areas have a containment system if holding more than 1000 Kg of liquid hazardous waste - 10 CSR 25-5.262 (2)(C)2.B.(I)	GOR		
7. <input checked="" type="checkbox"/> Base of containment system is impervious and free of cracks or gaps - 10 CSR 25-5.262 (2)(C)2.B.(III)(a).	GOR		
8. <input checked="" type="checkbox"/> Containers protected from contact with accumulated liquids - 10 CSR 25-5.262(2)(C)2.B.(III)(b).	GOR		
9. <input checked="" type="checkbox"/> Capacity of containment system = 10% of waste volume or volume of largest container, whichever is greater - 10 CSR 25-5.262(2)(C)2.B.(III)(c).	GOR		
10. <input checked="" type="checkbox"/> Run-on onto the containment system is prevented or excess capacity is provided - 10 CSR 25-5.262(2)(C)2.B.(III)(d).	GOR		
11. <input checked="" type="checkbox"/> Accumulated liquids removed to prevent overflow of containment - 10 CSR 25-5.262(2)(C)2.B.(III)(e).	GOR		
12. <input checked="" type="checkbox"/> Containers of ignitable or reactive waste stored >50 ft. from property line (or meet requirements) - 10 CSR 25-5.262(2)(C)5. referencing 40 CFR 265.176 as amended by 10 CSR 25-7.265(2)(I)7. and 8.	GPT		
13. <input checked="" type="checkbox"/> Containers clearly marked "hazardous waste" - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(3)	GPT		
14. <input checked="" type="checkbox"/> Waste packaged/labeled/marked per DOT during entire on-site storage period - 10 CSR 25-5.262(2)(C)1. light bulbs	GOR		
15. <input checked="" type="checkbox"/> Date of accumulation marked on containers - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(2)	GPT		
16. <input checked="" type="checkbox"/> Facility inspected and maintained (weekly) - 10 CSR 25-5.262(2)(C)2.A.(I) and (II) referencing 40 CFR 265.174	GPT		
17. <input checked="" type="checkbox"/> Daily inspection of areas subject to spills, i.e., waste handling areas - 10 CSR 25-5.262(2)(C)2.A.(II)	GOR		
18. <input checked="" type="checkbox"/> Adequate aisle space is available - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.35	GPT		
19. <input checked="" type="checkbox"/> Placards available for transporter - 10 CSR 25-5.262(1) incorporating 40 CFR 262.33	GPT		
20. <input checked="" type="checkbox"/> "No Smoking" signs conspicuously placed by ignitable or reactive wastes - 10 CSR 25-5.262(2)(C)2.D.(II)	GOR		
21. <input checked="" type="checkbox"/> Waste oil containers in good condition, labeled and closed - 10 CSR 25-11.010(3)(C)	GOR		

C. SATELLITE ACCUMULATION

1. <input checked="" type="checkbox"/> Containers kept closed - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i) referencing 40 CFR 265.173(a)	GPT	COMMENTS in accumulation
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2. <input checked="" type="checkbox"/> Containers in good condition - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i) referencing 40 CFR 265.171	GPT	COMMENTS Cubic yard box 8007 bulbs date 9-27-94 1/2 full
3. <input checked="" type="checkbox"/> Waste compatible with container - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i) referencing 40 CFR 265.172	GPT	
4. <input checked="" type="checkbox"/> Quantities accumulated not exceeding 55 gal. (1 quart of acutely-hazardous wastes) - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)	GPT	
5. <input checked="" type="checkbox"/> Satellite containers go to storage within 3 days of filling - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(2).	GPT	
6. <input checked="" type="checkbox"/> Container marked identifying contents & beginning date - 10 CSR 25-5.262(2)(C)3.	GOR	
7. <input checked="" type="checkbox"/> Stored in satellite areas less than 1 year - 10 CSR 25-5.262(2)(C)3.	GOR	

D. PREPAREDNESS AND PREVENTION AND EMERGENCY PROCEDURES

1. <input checked="" type="checkbox"/> Facility operated and maintained to minimize the possibility of an emergency - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.31	GPT	COMMENTS Small shovels brooms have some sludge area City of Spfld 2-way Radios on personnel 911
2. <input checked="" type="checkbox"/> Adequate and proper spill control, decontamination and safety equipment available (fire blankets, respirators, SCBA, absorbents, etc.) - 10 CSR 25-5.262 (2)(C)2.E.	GPT	
3. <input checked="" type="checkbox"/> Adequate water supply and fire control equipment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.32(c) & (d)	GPT	
4. <input checked="" type="checkbox"/> Device in the hazardous waste operation area capable of summoning emergency assistance - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.34(a)	GPT	
5. <input checked="" type="checkbox"/> Telephone or two-way radio on-site and capable of summoning local fire or police department - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.32(b)	GPT	
6. <input checked="" type="checkbox"/> Communication and emergency equipment tested and maintained - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.33	GPT	

E. LQG TANKS

TANK DESIGNATION	CONTENTS	CAPACITY	CONTAINMENT	AGE
1. Ammonia	Ammonium	6000g	Empty 100% largest tank	18+
2. Cupric	Cupric	4500g	↓	18+
3. Cupric	Cupric	4500g		18+
4.				
5.				

1. <input checked="" type="checkbox"/> Spill prevention controls in place and operating e.g. check valves, dry discount couplings - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(b)(1)	GPT	COMMENTS have no automatic cutoffs alarms → usual insp each day when over 5000g on cupric total order truck - 3000g leaving - ammonia 4000g/3 weeks call when gets to 4000 have had to shut down in past due to storage limitations could not ship
2. <input checked="" type="checkbox"/> Overfill prevention controls in place and operating e.g. high level alarms, automatic feed cutoff, etc. - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(b)(2) <i>Don't have to if they inspect?</i>	GPT	
3. <input checked="" type="checkbox"/> Sufficient freeboard in uncovered tanks to prevent overtopping - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(b)(3)	GPT	
4. <input checked="" type="checkbox"/> Waste or treatment method compatible with tank - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(a)	GPT	
5. <input checked="" type="checkbox"/> Compatible wastes not placed in same tank - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.199(a)	GPT	
6. <input checked="" type="checkbox"/> Ignitable or reactive wastes rendered safe/protected from sources of ignition or reaction - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.198(a)(1) and (2)	GPT	
7. <input checked="" type="checkbox"/> Ignitable or reactive wastes treated/stored in accordance with NFPA's buffer zone requirements - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.198(b)	GPT	

8. <input checked="" type="checkbox"/> Volatiles with vapor pressure > 78 mm @ 25° C not placed in open tanks - 10 CSR 25-5.262(2)(C)2.D.(I)	GOR
9. <input checked="" type="checkbox"/> Wastes and residues removed as hazardous waste and tank and equipment decontaminated upon closure - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.197(a)	GPT
10. <input checked="" type="checkbox"/> Secondary containment system provided for tanks and equipment; installed after July 14, 1986; storing dioxin waste; over 15 years old; of unknown age in facility over 15 years old; repaired, replaced or reinstalled after July 14, 1986 - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(a)	GPT
11. <input checked="" type="checkbox"/> Secondary containment system constructed of or lined with impervious waste compatible material - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(1)	GPT
12. <input checked="" type="checkbox"/> Containment system supported by base capable of preventing failure due to settlement, compression or uplift - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(2)	GPT
13. <input checked="" type="checkbox"/> Containment system provided with a leak detection system capable of detecting a release within 24 hours - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(3)	GPT
14. <input checked="" type="checkbox"/> Containment system sloped or designed to drain and remove liquids - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B. (III)(b)	GOR
15. <input checked="" type="checkbox"/> Containment system capable of containing 100% of the capacity of the largest tank - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B. (III)(c)	GOR
16. <input checked="" type="checkbox"/> Containment system free of cracks or gaps - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B. (III)(a)	GOR
17. <input checked="" type="checkbox"/> Run-on onto containment system prevented or excess capacity is provided - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B. (III)(d)	GOR
18. <input checked="" type="checkbox"/> Spilled or leaked waste and precipitation removed from secondary containment within 24 hours or as soon as possible - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(4)	GPT
19. <input checked="" type="checkbox"/> Tanks are clearly labeled or marked "Hazardous Waste" - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(3)	GPT
20. <input checked="" type="checkbox"/> Daily inspections of overflow/spill control equipment, aboveground portions of tank system, secondary containment, and data gathered from monitoring equipment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.195(a)	GPT
21. <input checked="" type="checkbox"/> Inspection log maintained - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.195(c)	GPT
22. <input checked="" type="checkbox"/> Cathodic protection systems inspected annually, impressed current sources every two months - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.195(b)	GPT
23. <input checked="" type="checkbox"/> Detailed written assessment by an independent, qualified, professional engineer for tanks installed after July 14, 1986, prepared and on-site - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.192	GPT
24. <input checked="" type="checkbox"/> Written assessment by an independent, qualified, professional engineer prepared and on-site for tanks lacking secondary containment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.191	GPT
25. <input checked="" type="checkbox"/> Leak test, internal inspection or tank integrity exam performed annually and documented, by an independent, qualified, professional engineer for tanks lacking secondary containment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(i)	GPT
26. <input checked="" type="checkbox"/> Leak/spill response resulted in: waste flow stopped immediately; waste removal; containment and removal of visible releases to the environment; notification and report; and repair or closure - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.196	GPT

COMMENTS

single walled tanks

Epoxy Resin coated under tanks and on walls

They say its OK

only visual "product" tank leaking

enclosed can Remove w/pump
No slope or no sump

nothing outside or under containment system to detect leaks

covered

Covered
Check levels everyday
would spot leaks have repaired in past

NFPA 704 Spent material date

leak from pump - replaced acid through system

last inspection
Oct 1, 1993

PART 2: RECORDS INSPECTION

F. MANIFESTS

		COMMENTS
1. <input checked="" type="checkbox"/> Facility uses manifest system - 260.380.1.(6) RSMo, and 10 CSR 25-5.262(2)(B)	GMR	
2. <input checked="" type="checkbox"/> Records maintained for a 3-year period - 10 CSR 25-5.262(1) incorporating 40 CFR 262.40(a)	GRR	
3. <input checked="" type="checkbox"/> Generator's MO & EPA I.D. Numbers - 10 CSR 25-5.262(2)(B)	GOR	
4. <input checked="" type="checkbox"/> Manifest document, ID and consecutive shipment numbers - 10 CSR 25-5.262(2)(B)2.A.	GOR	KH said not to follow check on and put in inspection Report
5. <input checked="" type="checkbox"/> Generator's name, address and phone number - 10 CSR 25-5.262(2)(B)2.	GMR	
6. <input checked="" type="checkbox"/> All transporters' names, phone numbers, MO & EPA I.D.#'s, license plate # - 10 CSR 25-5.262(2)(B)2.	GMR	
7. <input checked="" type="checkbox"/> Designated facility name, address, phone, MO & EPA I.D. #, - 10 CSR 25-5.262(2)(B)2.	GMR	
8. <input checked="" type="checkbox"/> DOT shipping name, Hazard Class and waste I.D. # (RQ - if required) - 10 CSR 25-5.262(2)(B)2.	GMR	
9. <input checked="" type="checkbox"/> Containers, quantity and specific gravity designated - 10 CSR 25-5.262(2)(B)2.	GMR	assume 1.5 Gs
10. <input checked="" type="checkbox"/> Manifest signed and dated - 10 CSR 25-5.262(2)(B)2.	GMR	
11. <input checked="" type="checkbox"/> Out of state manifests have all required MO information - 10 CSR 25-5.262(2)(B)4.A.	GOR	
12. <input checked="" type="checkbox"/> Manifest continuation sheets are not used - 10 CSR 25-5.262(2)(B)1.	GOR	
13. <input checked="" type="checkbox"/> Manifest returned within 35 days - or exception report submitted within 45 days - 10 CSR 25-5.262(2)(D)2.C.	GRR	have log on Returned manifest
14. <input checked="" type="checkbox"/> Summary Manifest Reports and manifest copies sent to DNR quarterly - 10 CSR 25-5.262(2)(D)1.	GOR	

G. LAND DISPOSAL RESTRICTIONS

		COMMENTS
1. <input checked="" type="checkbox"/> Tests waste or uses knowledge of waste to determine if the waste is restricted from land disposal - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)	GLB	
2. <input checked="" type="checkbox"/> Dilution of waste to meet LDR treatment standards is not occurring - 10 CSR 25-7.268(1) incorporating 40 CFR 268.3(a)	GLB	
3. <input checked="" type="checkbox"/> "Land-Ban" notification/certification, sent with manifests and retained on-site for five years - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)	GLB	
4. <input checked="" type="checkbox"/> Notification/certification includes correct EPA Hazardous Waste number, corresponding treatment standards, manifest number, and waste analysis data - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)	GLB	
5. <input checked="" type="checkbox"/> Waste analysis plan on-site and utilized if generator treats hazardous waste in tanks or containers to meet LDR treatment standards - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)(4)	GLB	

H. PERSONNEL TRAINING

		COMMENTS
1. <input checked="" type="checkbox"/> Personnel are trained to respond to emergencies including the use of alarm systems, emergency equipment and contingency plan - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(a)(3).	GPT	
2. <input checked="" type="checkbox"/> Employees do not work in unsupervised positions until they have completed the training - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(b)	GPT	
3. <input checked="" type="checkbox"/> Training reviewed annually - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(c)	GPT	
4. <input checked="" type="checkbox"/> Program director trained in hazardous waste management procedures - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(a)(2)	GPT	
5. <input checked="" type="checkbox"/> Personnel training plan on-site - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)	GPT	employees will be trained prior to working unsupervised & annually

6. <input checked="" type="checkbox"/> Gives job title, job description and name of employee filling each position - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)(1) and (2)	GPT	COMMENTS <i>Need to elaborate/expand</i>
7. <input checked="" type="checkbox"/> Written description of introductory and continuing training that will be given to each position - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)(3)	GPT	
8. <input checked="" type="checkbox"/> Documentation of training completed by personnel - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)(4)	GPT	
9. <input checked="" type="checkbox"/> Records of current personnel maintained until facility closure, former employee records maintained for at least three years - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(e)	GPT	

I. CONTINGENCY PLAN

1. <input checked="" type="checkbox"/> Contingency plan maintained on-site - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.53(a).	GPT	COMMENTS <i>update EPA + DNR phone numbers 1989 notifications and arrangements - w/ changes in facility may wish to renotify</i>
2. <input checked="" type="checkbox"/> Plan submitted to local emergency response agencies - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.53(b)	GPT	
3. <input checked="" type="checkbox"/> Emergency coordinator on-site or on call - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.55	GPT	
4. <input checked="" type="checkbox"/> Plan describes actions personnel must take in response to fires, explosions or other releases of hazardous waste - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(a)	GPT	
5. <input checked="" type="checkbox"/> Describes arrangements with emergency response agencies - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(c)	GPT	
6. <input checked="" type="checkbox"/> Lists names, addresses and phone numbers (home and office) of emergency coordinators - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(d)	GPT	
7. <input checked="" type="checkbox"/> Primary emergency coordinator designated - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(d)	GPT	
8. <input checked="" type="checkbox"/> List emergency equipment including description, location and capabilities - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(e)	GPT	
9. <input checked="" type="checkbox"/> Evacuation plan, if applicable, designates primary and secondary routes and evacuation signal - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(f)	GPT	

J. WASTE OIL

1. <input checked="" type="checkbox"/> Waste oil is managed properly and not disposed of into the environment - 10 CSR 25-11.010(1)(D).	GOR	COMMENTS <i>Southwest Oil</i>
2. <input checked="" type="checkbox"/> Listed hazardous waste mixed with waste oil is handled as a hazardous waste - 10 CSR 25-11.010(1)(C)2.	GOR	
3. <input checked="" type="checkbox"/> Registered as waste oil generator if gen./accum. 220 lb. - 10 CSR 25-11.010(2)(A)	GOR	
4. <input checked="" type="checkbox"/> Written waste oil contract maintained - 10 CSR 25-11.010(4)(C)	GOR	
5. <input checked="" type="checkbox"/> Uses a licensed transporter and receiving facility - 10 CSR 25-11.010(4)	GOR	

K. RESOURCE RECOVERY

1. <input checked="" type="checkbox"/> RR certification for energy recovery or reclamation of waste oil or hazardous waste on-site - 10 CSR 25-9.020(1)(A)3.	GOR	COMMENTS
2. <input checked="" type="checkbox"/> Still bottoms or RR residues disposed of properly - Section 260.380.1(5) RSMo.	GOR	
3. <input checked="" type="checkbox"/> Facility is classified as U, R1 or R2 accurately - 10 CSR 25-9.020(3)(A).	GOR	
4. <input checked="" type="checkbox"/> Facility meets the operating conditions of certification - 10 CSR 25-9.020(30)(E)3.	GOR	
5. <input checked="" type="checkbox"/> Facility has submitted a written request and received approval from the DNR for all changes in operation including closure - 10 CSR 25-9.020(3)(E) 1. and 2.	GOR	

		COMMENTS
6. <input type="checkbox"/> Facility report submitted to DNR quarterly - 10 CSR 25-9.020(3)(E)6. referencing 10 CSR 25-7.264(2)(E)3.	GOR	N/A
7. <input type="checkbox"/> Facility maintains a written operating record - 10 CSR 25-9.020(3)(E)5. referencing 40 CFR 264.73(b)(1) & (2) as modified by 10 CSR 25-7.264(2)(E)2.	GOR	
8. <input type="checkbox"/> Facility has notified EPA and the state that it qualifies for a small quantity on-site burner exemption or has interim status or a permit if it burns hazardous waste on-site - 10 CSR 25-7.266(1) incorporating 40 CFR 266.108 and 40 CFR 266.103.	GOR	
9. <input type="checkbox"/> R2 facility uses an adequate sampling and analysis plan to assess incoming shipments - 10 CSR 25-9.020(3)(C)1.	GOR	
10. <input type="checkbox"/> R2 facility maintains a daily log of manifest number, wastes received, disposition of waste and corresponding sampling data - 10 CSR 25-9.020(3)(C)2.	GOR	
11. <input type="checkbox"/> R2 facility has a written closure plan which meets 40 CFR 264.112 requirements - 10 CSR 25-9.020(3)(C)3.	GOR	
12. <input type="checkbox"/> R2 facility provides financial assurance for closure - 10 CSR 25-9.020(3)(C)4.	GOR	

CHECKLIST KEY

Check the ☒ if in compliance.

Circle the ☐ if not in compliance and provide comment.

N/A = Not Applicable

A shaded item is a serious deviation from the requirements (Class I violation)

An unshaded item is a significant deviation from the requirements (Class II violation unless conditions warrant Class I)

COMMENTS: INCLUDE DISCUSSION OF FACILITY'S WASTE MINIMIZATION PLAN

INSPECTOR'S SIGNATURE

Marked

DATE